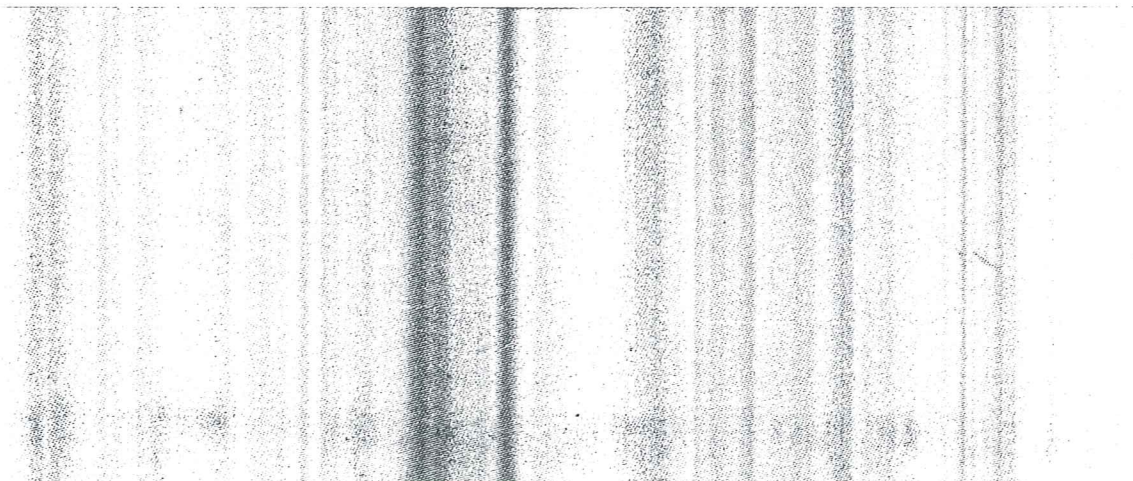


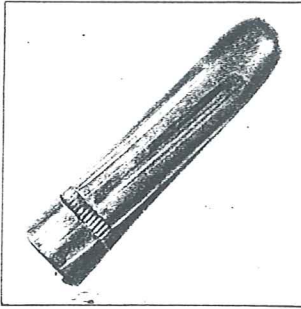
# THE SUNDAY TIMES *magazine*

OCTOBER 9, 1966



**Who killed Kennedy?  
The crucial evidence**



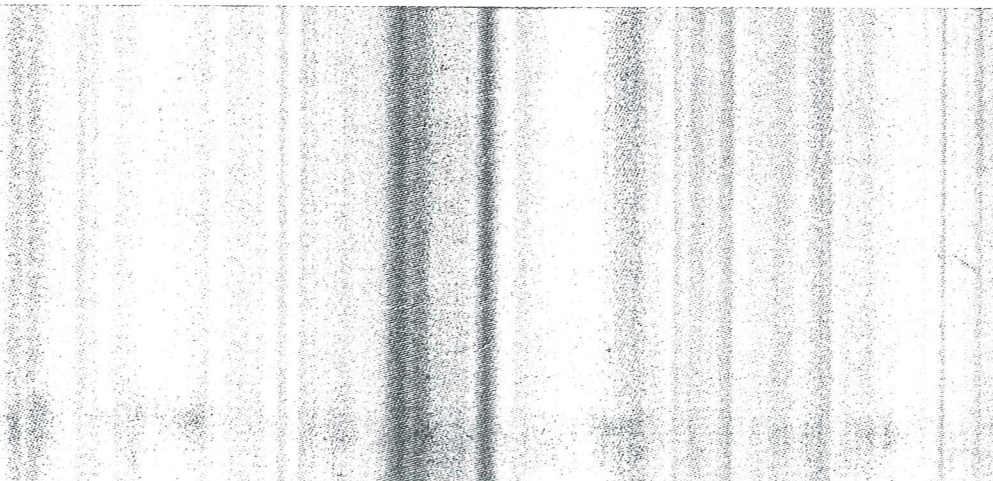


**Did this one bullet pass through both John F. Kennedy and John B. Connally on that afternoon in Dallas when Kennedy was killed? If you say it did, the official verdict on the crime can stand. Lee Harvey Oswald, acting alone, was the murderer. If you reject the single-bullet theory, then the evidence indicates that Oswald was not alone. The Warren Commission, led by the Chief Justice of the United States, got it wrong. And those hideous events, three years ago next month, begin to assume the aspect of conspiracy.**

**This is the central issue in the current phase of the stubborn controversy which surrounds the President's death. In the following pages INSIGHT tries to set out the essential arguments and evidence, so that you can assess the nature of the facts yourself.**

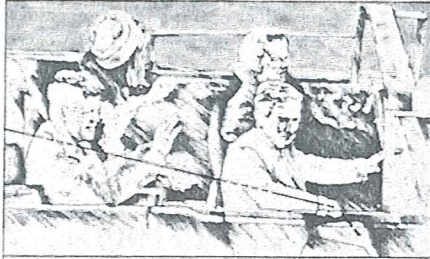
**The few people who have read through the 26 volumes of evidence which the Warren Commission collected – with their 3154 exhibits, their records of 25,000 F.B.I. interviews and 489 hearings of testimony, their baffling mass of detail – have come up with widely differing views.**

**But one conclusion recurs. The Commission's 888-page Report appears a vulnerable document.**

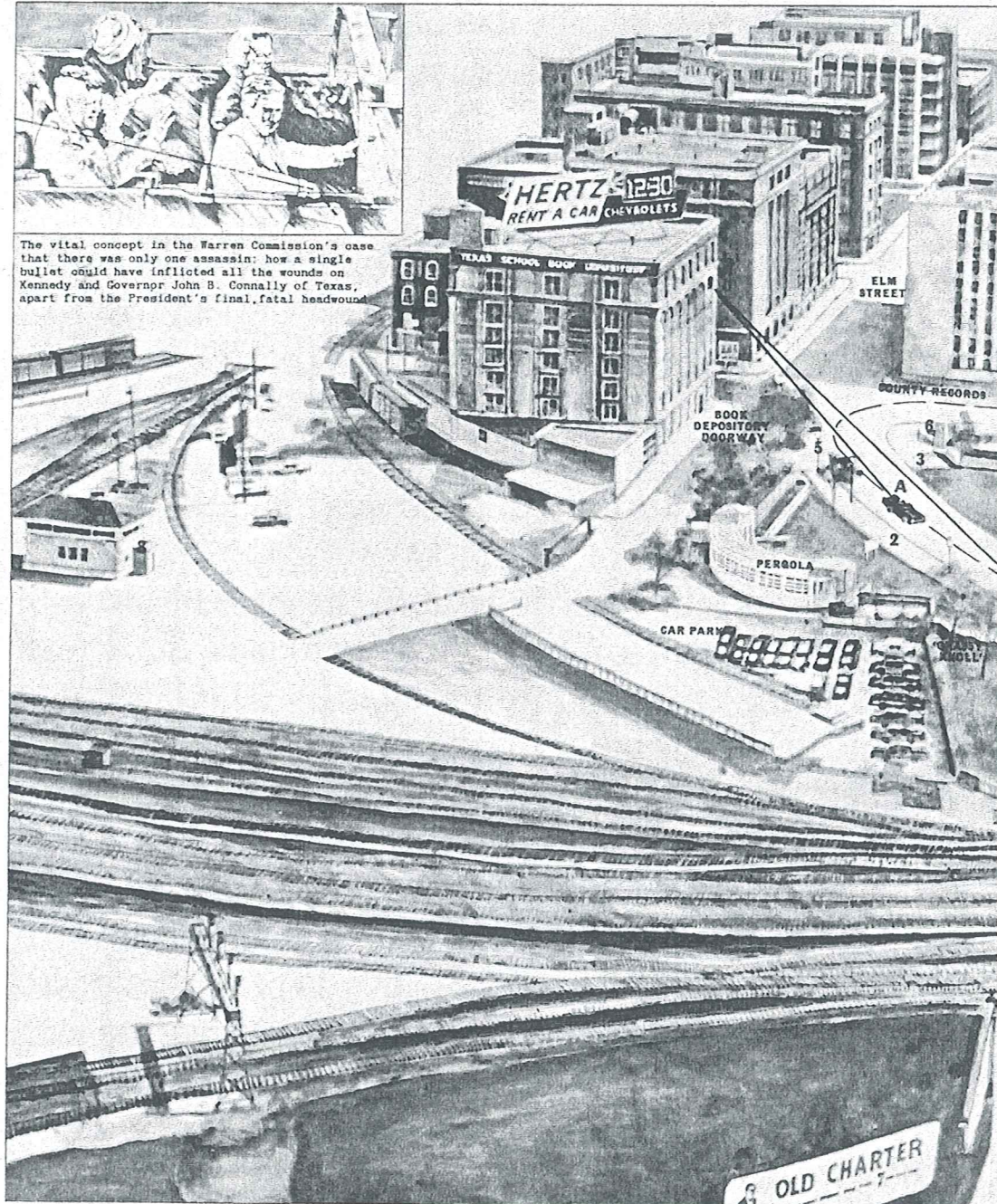


# Dealey Plaza, Dallas, Texas: the disposit

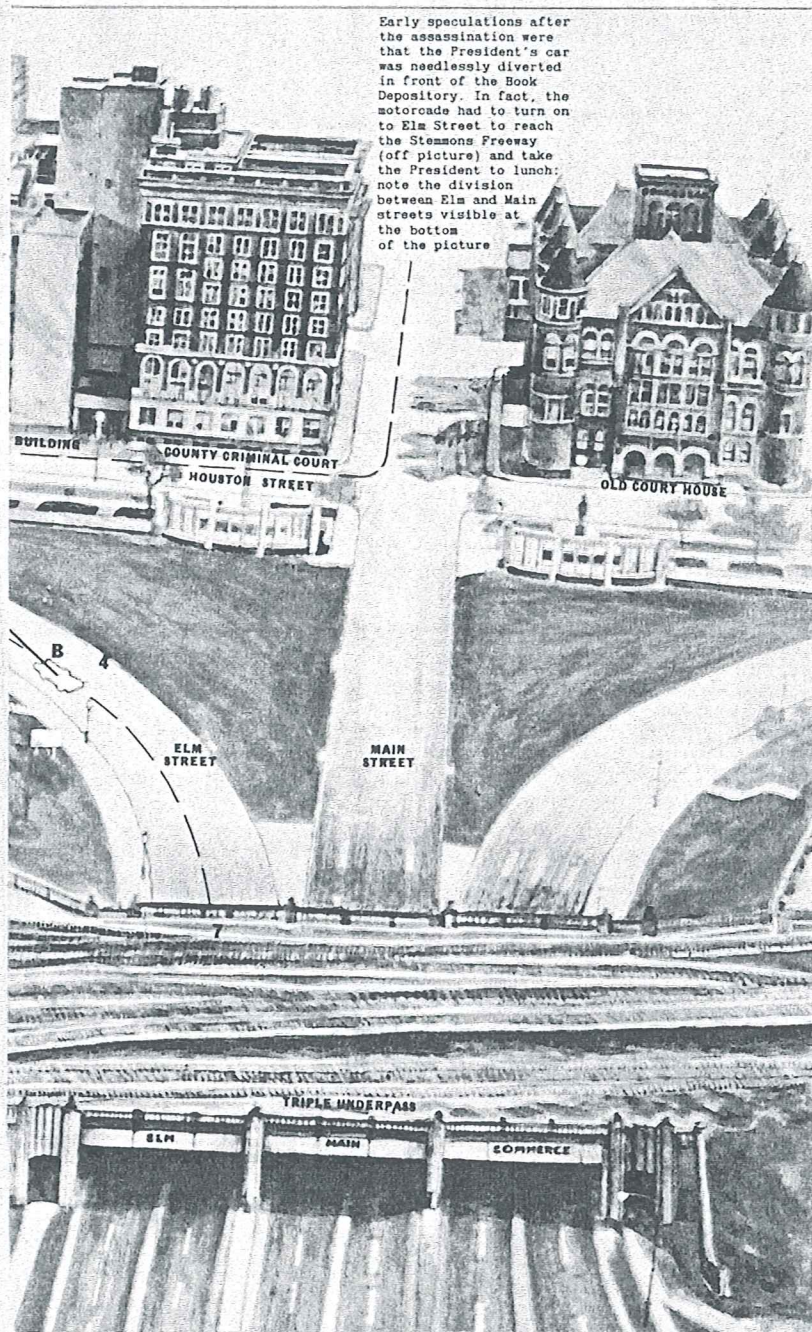
Illustrations by Arnold Schwartzman



The vital concept in the Warren Commission's case that there was only one assassin: how a single bullet could have inflicted all the wounds on Kennedy and Governor John B. Connally of Texas, apart from the President's final, fatal headwound.



# ions at 12.30pm on November 22, 1963



The Warren Commission decided that it was not possible to describe the train of events with complete certainty. But they pieced together, from films, photographs and eye-witness accounts, a sequence which they regarded as the most credible: the first shot was fired when the Presidential limousine was at position A, about 180 ft. from the south-east corner of the Texas School Book Depository. It hit both Kennedy and Connally (inset) inflicting non-fatal wounds.

The fatal shot was fired when the car was at B, hitting the President alone in the head at a range of 265.3 ft. Another shot, which missed altogether, was most likely fired between A and B. The basic evidence on this sequence is a cine-film taken by Abraham Zapruder, standing at 1 and tracking his camera to follow the Presidential car. Running at 18.3 frames per second,

Zapruder's film shows on frame 1 the car turning into Elm Street from Houston. It shows Kennedy waving to the crowd until frame 205, when a street-sign 2 blocks Zapruder's view.

In frame 225, Kennedy reappears, and has clearly been hit: his hands are going to his throat. The Commission thought he was reacting to a hit around frame 210, eight-tenths of a second earlier.

Frame 313 shows the fatal head-shot precisely, in an explosion of brain-tissue from the President's skull. The Zapruder film was cross-checked with films taken from the other side of Elm Street by Orville G. Nix and Mary Muchmore, and with still pictures taken by Phillip L. Willis at 3 and James A. Altgens at 4 (see later pages).

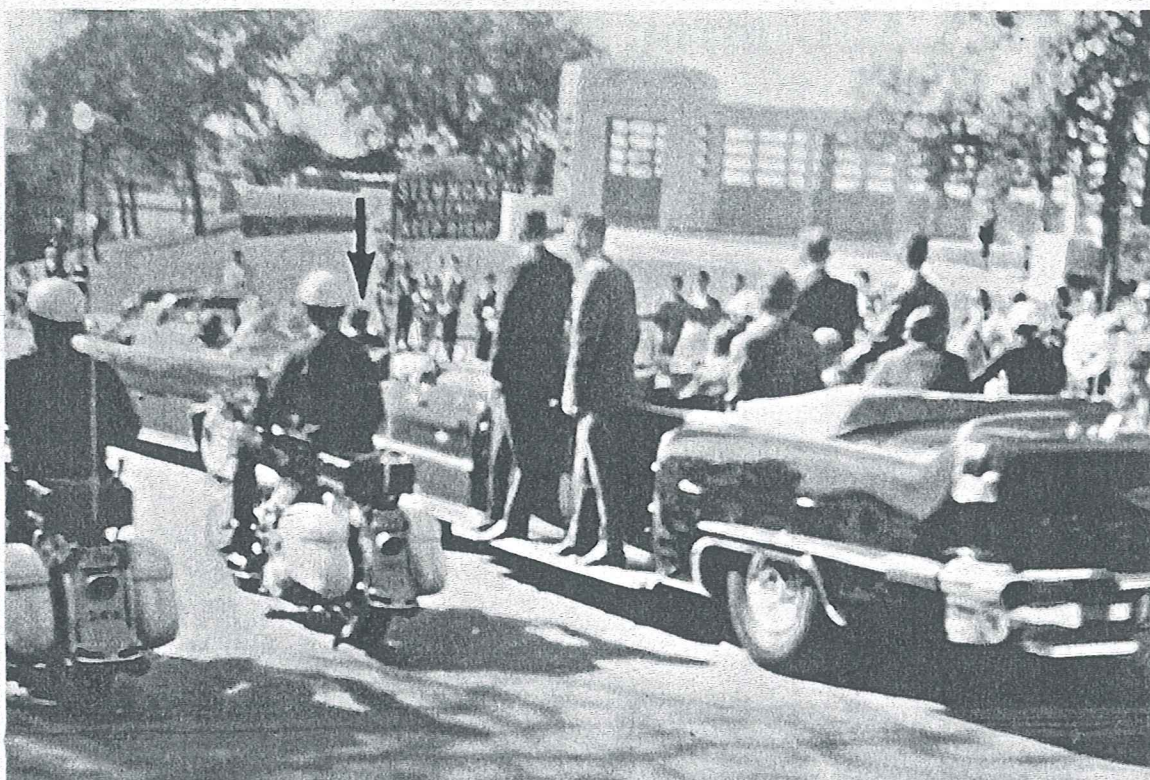
It was also checked against a reconstruction of the assassination, which showed that between Zapruder frames 166 and 207 view from the sixth-floor window was obscured by an oak-tree 5. Although an assassin would have had a clear shot from the window as the car came up Houston Street and turned, he would have been easily seen by Secret Service men, who normally watch ahead.

Sitting on a concrete wall at 6, 120 ft. from the Depository window, was Howard L. Brennan. He said he looked up during the shooting and saw a man at the window aiming a final shot. After pausing "as though to assure himself that he had hit his mark", the man vanished.

Brennan, who subsequently maintained that the marksman was Oswald, was the most important of the witnesses the Commission relied on to show that the shots came from the Depository.

Anti-Commission writers emphasise that a majority of the people in Dealey Plaza thought some or all of the shots came from the 'grassy knoll' area.

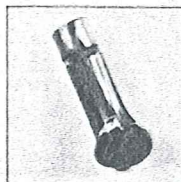
S. M. Holland, who stood at 7, said he saw a puff of smoke in the trees lining the knoll. The late Lee E. Bowers, in the railway tower at 8, said he saw something resembling a flash of light in the car-park area.



Almost certainly, this picture shows the moment when President Kennedy (arrowed) received his first wound. It was taken by a Dallas photographer, Philip L. Willis, from position J in the drawing on the previous page. Willis' camera points almost

directly towards cine-cameraman Zapruder's vantage-point beside the pergola, and the street-sign which momentarily blocked Zapruder's view can be seen. The Commission found that this picture corresponded to frame 210 of the Zapruder film: only three frames after the first point

at which a marksman could have seen Kennedy from the sixth floor Depository window. Willis declared that he pressed his shutter just as the first shot rang out: the Commission thought this was powerful corroboration that "the first shot did not miss".

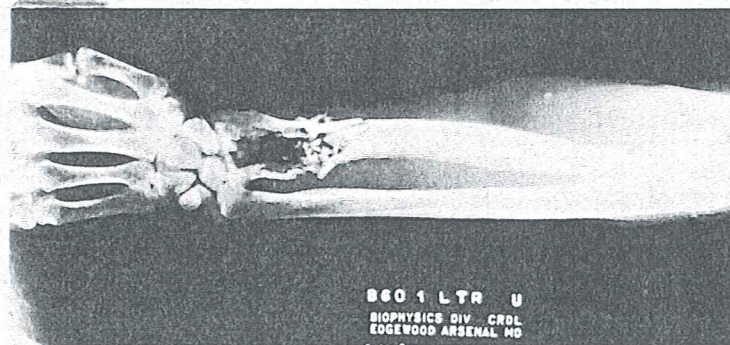


One of the hottest relationships in the controversy is between Commission Exhibit 856 (the bullet above), Exhibit 855 (the X-ray photo, right) and Exhibit 399, the bullet on the facing page. Bullet 399, according to the Commission, penetrated Kennedy's neck, and Governor Connally's chest, wrist and thigh (see inset on previous pages). Yet it looks very nearly undamaged.

Bullet 856 was a test-shot, fired at a range of 210 ft. through a human cadaver wrist.

This produced damage in the cadaver wrist, shown in the X-ray, which doctors said was almost identical to Connally's wrist wound. But after causing this damage alone, bullet 856 was heavily distorted. Could a bullet which also caused three other

10 wounds remain as pristine as 399?



# The vital 1.8 seconds

The reason that the single-bullet theory is crucial to the case against Oswald lies in the qualities of the rifle which was found in the Depository building and said to be his. It was a Mannlicher-Carcano model 91/38, made in Italy in 1940 - but designed in 1891.

The 91/38 is well known in the U.S. as a mediocre war-surplus weapon. (This one, serial number C2766, had been sold for £4 11s. 9d.)

It does not reload automatically, like modern military rifles. Between each shot the user must release a bolt-handle on the breech-mechanism, draw it back to eject the spent cartridge, drive it forward to pick up a fresh cartridge from the magazine, and finally re-lock the bolt handle.

Some bolt-actions are better than others; for instance the .303 Lee-Enfield which the British Army used till recently is extremely smooth and fast. But the Mannlicher-Carcano 91/38 is clumsy, and C2766 seems to have been a particularly poor specimen.

Ronald Simmons, the U.S. Army weapons expert who arranged rifle tests for the Commission, spoke of the "effort" required to open the bolt. The tests showed that C2766 could not be fired faster than once every 2.3 seconds.

Now the Zapruder film timings (see reconstruction drawings, pages 8-9) come in. The vital sequence, at 18.3 frames per second, goes like this:

Frame 207 is the earliest moment Kennedy could have been hit by an aimed shot from the Depository, and he may have received his first wound then - although frame 210 seems rather likelier. Anyway, he had certainly received a wound by frame 225.

Frame 240 is the latest moment that Governor Connally could have been hit from "Oswald's window", because after that he was out of position.

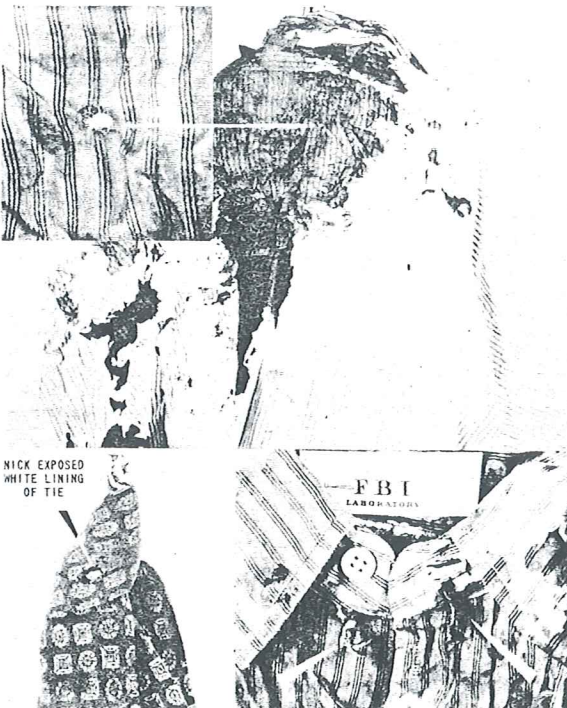
Therefore, the *maximum* time that could have elapsed between Kennedy's throat-wound and Connally's shot through the chest, wrist and thigh is 33 film frames, or 1.8 seconds.

Yet rifle C2766 could not fire two shots in less than 2.3 seconds. This is why Norman Redlich, the Warren Commission lawyer who drafted much of the Report, says: "To say that they were hit by separate bullets is synonymous with saying that there were two assassins."

If the Commission's description of Kennedy's first wound is correct - that a bullet passed through his neck from back to front - then the same bullet could have gone on and hit Connally. But Connally, on seeing the film, testified that he was hit between frames 231-234 - six to nine frames after Kennedy can be seen reaching for his throat.

The Commission came to the conclusion that Governor Connally had a delayed reaction to his wound: which is perfectly possible medically, but certainly creates difficulty with Connally's unusually cogent and detailed evidence:

*Commission Counsel Arlen Specter:* In your view, which bullet caused the injury to your chest, Governor Connally? *A.:* The second one. *Mr Specter:* And what is your reason for that conclusion, sir? *A.:* Well, in my judgement it just couldn't conceivably have been the first one because I heard the sound of the shot. In the first place, I don't know anything about the velocity of this particular bullet, but any rifle has a velocity that /continued overleaf



NICK EXPOSED WHITE LINING OF TIE

VIEW OF THE BACK OF PRESIDENT KENNEDY'S SHIRT WITH CLOSE-UP OF BULLET ENTRANCE HOLE. LOWER TWO PHOTOGRAPHS SHOW PROJECTILE EXIT HOLE IN COLLAR AND NICK IN RIGHT SIDE OF TIE.

EXHIBIT 60

These photographs of President Kennedy's clothing were not included in the Warren Report. The bullet-hole in the back of the shirt (above) is 5 1/4 in. below the collar top. The bullet-hole in the jacket (below right) is 5 1/4 in. below the collar top



VIEW OF THE BACK OF PRESIDENT KENNEDY'S SHIRT WITH CLOSE-UP OF BULLET ENTRANCE HOLE

EXHIBIT 59

The medical drawing above - again, not shown in the Warren Report - represents the Commission's account of the President's first wound. Commission lawyers have claimed recently that the apparent

discrepancy between this wound-position and the evidence of the shirt and jacket can be explained by assuming that the President's clothes rode up as he waded to the crowd

exceeds the speed of sound, and when I heard the sound of that first shot, that bullet had already reached where I was . . . I had the time to turn to my right, and start to turn to my left before I felt anything.

"It is not conceivable to me that I could have been hit by the first bullet . . ."

Obviously, Connally could have been mistaken. But do the medical records of President Kennedy's wounds indicate that a bullet could have emerged from the front of his body, going in the right direction to hit Connally? Here the issue grows clouded.

The autopsy on Kennedy was done on the night of the assassination, in the U.S. Navy medical centre at Bethesda, Maryland. After the destruction of "certain preliminary draft notes" an autopsy report was prepared, published in the Warren Report and describes a head wound and neck wound.

Chief Justice Earl Warren, chairman of the Commission, and one other commissioner are said to have seen the X-rays. But this would almost certainly have been a meaningless exercise without expert interpretation - and they did not look at the external photographs of the body.

As a substitute the Commission and its investigators were given drawings. These, according to Cdr J. J. Humes, who conducted the autopsy, were prepared by an artist from verbal instructions.

One of these drawings, depicting the neck wound, is shown on the previous page. The critics of the Commission's findings claim that it does not seem to square with the evidence of Kennedy's clothing, which indicates an entrance in the back.

Now, if the front wound is correctly placed beside the Adam's apple (and the doctors who saw Kennedy in Dallas corroborate this) then the suggested entry wound (not examined in Dallas) must not be too far down. It has to square with the claim that Kennedy was shot from above and behind, that the bullet traversed his flesh at a slight downward angle, and continued going downward to hit Connally, sitting in the slightly lower jump seat.

The rear wound is described in the autopsy report as being approximately 5½ in. below the "tip of the right mastoid process" (the lump behind the ear). The hole in the President's jacket was exactly 5½ in. below the collar-top, and the shirt-hole exactly 5½ in. below the collar-top. This would seem to mean that a buttoned shirt-collar rode up to ear-level.

In this somewhat uncertain situation, one in which accuracy is critical, photographs or X-rays would be immensely useful. But instead of such clarifying evidence, there is further documentation which is even more confusing.

First, there is the form, containing a schematic outline of a human body, which Cdr Humes filled up during the autopsy (see page 14). On this, Humes appears to have noted a wound in the right upper back, not the neck. It is a question whether this chart agrees with the drawing on page 11.

Even more puzzling is the question of the Federal Bureau of Investigation's version of the autopsy findings. The F.B.I., as the agency in charge of the basic leg-work in the case, submitted a Summary Report on the assassination to the Warren Commission on December 9, 1963. This said:

"Medical examination of the President's body revealed that one of the bullets had entered just below his shoulder to the right of the spinal column at an angle of 45 to 60 degrees downward, that there was no point of exit, and that the bullet was not in the body."

12 This not only seems to place the shot lower than

the artist's drawing. It also denies that the bullet exited at the front.

As the Bethesda autopsy report is not dated, its time relationship to this diametrically-conflicting F.B.I. document cannot be established. But on January 13, 1964, in the Supplemental Report, the F.B.I. repeated the same amazing statement:

"Medical examination of the President's body had revealed that the bullet which entered his back had penetrated to a distance of less than a finger length."

As well as F.B.I. men, there were agents from the Secret Service - the Presidential security corps - present at the autopsy. Agent Roy Kellerman described in testimony a doctor, Lt-Col. Pierre A. Finck, examining the body: "He is probing inside the shoulder and I said, 'Colonel, where did it go?' He said: 'There are no lanes for an outlet of this entry in this man's shoulder.'"

This clash of evidence is potentially fatal to the crucial single-bullet theory. Manifestly, if the shoulder/neck bullet did not 'outlet forward' it could not have hit Connally. One explanation offered to resolve the clash says that the F.B.I. men left the autopsy room to telephone information before the wounds had been fully investigated. Thus, incomplete accounts were included in the F.B.I. Summary Report.

Apart from indications in Secret Service testimony that one F.B.I. man was always present, the Summary Report contains information dated as much as 12 days after the autopsy. Seeing that the alleged error was repeated on January 13, how long was the chief detective agency in the case using "incomplete accounts"? (The agents' eyewitness accounts, on which both reports must be based, became available in the National Archives recently. They describe Humes also pushing his finger into the wound and finding no outlet.)

Short of photographic or X-ray evidence, the confusion over the President's wounds can seemingly be resolved only by saying that the F.B.I. was so incompetent that much other evidence it produced must be questioned.

Further objections to the 'single-bullet' theory revolve round the surprisingly good preservation of the bullet in question: a 6.5 mm. lead-cored, copper-jacketed rifle bullet, exhibit 399 (page 11).

Found on a stretcher in Dallas hospital, it was assumed to have fallen out of Connally's thigh. (Apart from 399, only fragments were found, so it was the only projectile which could be proved to have been fired by Mannlicher-Carcano C2766.)

Yet it is remarkably undamaged for a bullet said to have traversed a neck, a rib and a wrist, before burying itself in Connally's thigh. It still weighs 158.6 grains, as against the heaviest-found weight of 160-161 grains for a 6.5 mm Mannlicher-Carcano bullet. And doctors found three grains of metal in Connally's wrist alone. Col. Finck said that for that reason exhibit 399 could not have been the bullet that hit Connally's wrist.

And the evidence of the wound tests seems to add further difficulties. Firing test bullets through cadaver wrists alone produced considerable bullet-damage. Wound-ballistics expert Dr Alfred G. Olivier was shown test-bullet Exhibit 856 (pictured page 10) and after saying it had caused a wound in the cadaver "for all purposes identical" with Connally's, he was asked to compare it with Exhibit 399. He said:

"It is not like it at all. I mean, Commission Exhibit 399 is not flattened on the end. This one is very severely flattened on the end."

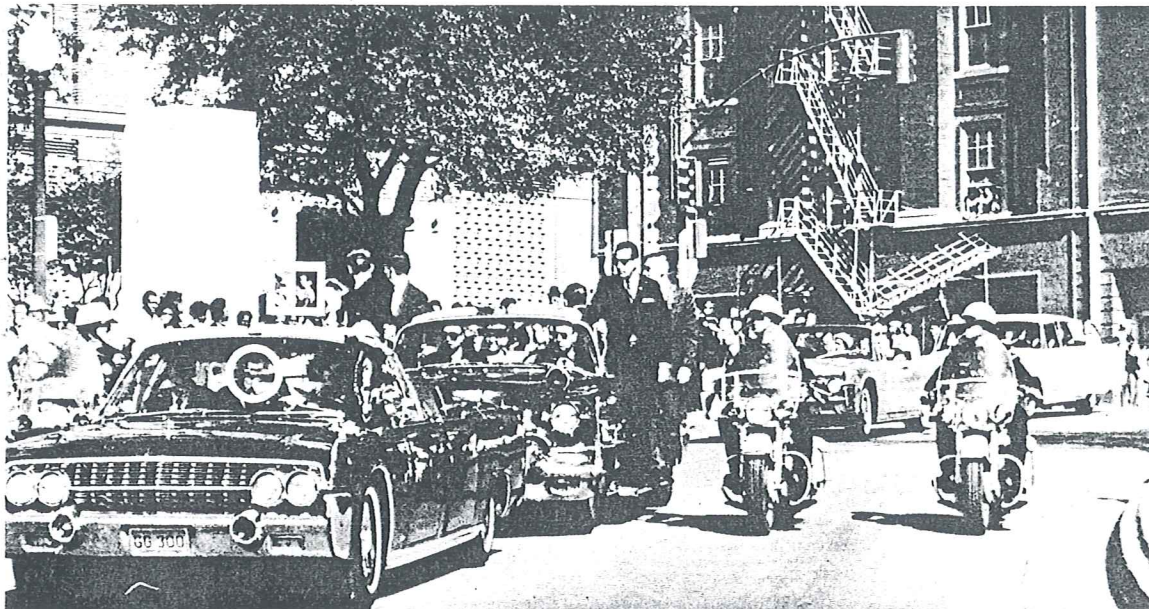
## A question of identity



Another picture taken by Phillip L. Willis: this time, just after the assassination, aiming towards the Book Depository doorway. The question is whether the man shown framed at the extreme right of the picture, and enlarged below, could be Jack Ruby. (Compare with authenticated picture of Ruby at bottom of this page)



Willis told a Mark Lane investigator on November 17, 1964, that when F.B.I. agents questioned him after the assassination "they seemed to think that Ruby was the man in the picture". The Commission published Willis' photograph, but trimmed slightly, excluding part of the face of the man who could be Ruby. (Willis pictures, by courtesy of Mark Lane)



## The case of the striped shirt

James Altgen, an Associated Press photographer of 25 years experience, took this picture from position 4 in the reconstruction drawing on pages 8-9. Altgen was about 30 ft. from the President's car when he pressed the shutter, and as he did so he heard a shot. The picture seems to represent a moment slightly later than Zapruder frame 255. The President, although partially obscured by the driving mirror, can be seen to be raising

hands to his throat. Behind the car can be seen the oak-tree which would have blocked a sixth-floor sniper's view till frame 207.

The fact that Altgen was never called before the Commission, despite his high potential as a witness, caused some comment in the American Press. Eventually, he was interviewed by Commission counsel, and said that just after the shooting he saw 'uniformed policemen' rushing up the grassy knoll, and followed them under the impression that they might have the assassin cornered.

But the thing about Altgen's picture which caused most comment was its portrayal of the Book Depository

doorway. It showed a man (framed, and enlarged below) who looked to many people like Oswald—who was supposed to be six floors up firing a rifle. Referring to Altgen's picture, the Warren Report says that it showed "several employees watching the parade from the steps of the Depository Building. One of these employees was alleged to resemble Lee Harvey Oswald. The Commission has determined that the employee was in fact Billy Nolan Lovelady, who identified himself in the picture."

But the allegations are still being put: backed by the kind of comparisons made in the pictures below



Above is Oswald, shortly after his arrest on the day of the assassination. He is wearing a dark, heavy-textured shirt, open to the waist over a white singlet. Far right is Billy Lovelady, photographed subsequently by the



F.B.I. in the clothes he said he wore on the same day. (The bold vertical stripes are red and white.) Clearly there is a physical resemblance between Oswald and Lovelady, and facially either of them might be the man in the



blowup (centre) of Altgen's picture. But could Lovelady's striped shirt have come out like that? Also, Lovelady's boss told the F.B.I. that Lovelady was sitting, not standing, on the Depository steps at the time of the shooting

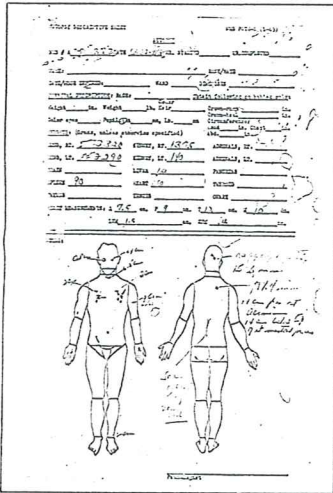
## Which wound?

### I. FBI Laboratory Examination

#### A. President's Clothing

The FBI Laboratory has determined that the bullets used in the assassination of President Kennedy on November 22, 1963, were a military type manufactured by the Remington-Union Metallic Cartridge Company, East Amherst, Illinois. These bullets have solid cores with full copper alloy jackets and lead cores. Examination of the President's clothing by the FBI Laboratory disclosed that there was a small hole in the back of his coat and shirt approximately six inches below the top of the collar and two inches to the right of the middle seam of the coat. There were minute traces of copper on the fabric surrounding the hole. Medical examination of the President's body had revealed that the bullet which entered his back had penetrated to a distance of less than a finger length. (Exhibits 59 and 60)

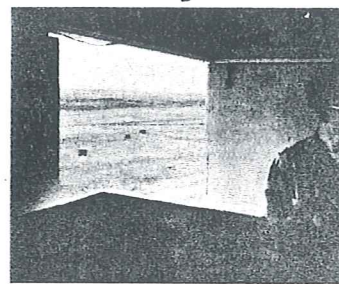
Above: page 2 of the F.B.I. Supplemental Report to the Warren Commission, dated January 15, 1964. (Exhibits 59 and 60 are the jacket and shirt shown on page 11.) Below: printed diagram filled in during autopsy at Bethesda Medical Centre. (Compare position of rear wound with clothing and drawing, page 11.) It was filled in by Cdr Humes at the autopsy



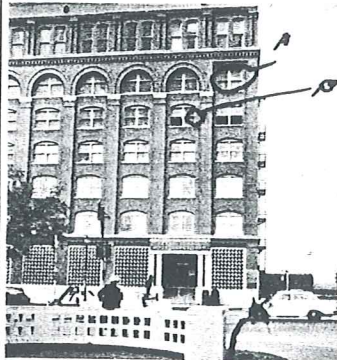
## Was it an 'easy' shot?



The tower above was used to simulate Oswald's alleged 'sniper's nest' in the Depository, marked 'A' in the photo below. Although the sixth-floor south-east window of the Depository was 60 ft. above ground level, the Army test-firing platform was estimated by Ronald Simmons, the weapons-evaluation expert in charge, as being only 30 ft. or so above ground



Marksman's view from the test-platform: the targets are slightly larger-than-life black outlines on boards, representing upper part of body and head. In this test (see table below) three marksmen did register hits on the silhouettes. But no one registered a hit on the head or neck while using the equipment Oswald is said to have used



Witness Howard Brennan photographed in the position he was in during the assassination. He marked the photo himself: saying that he saw spectators at B - and at A a rifleman "standing up and resting against the left window-sill". After some prevarication, he claimed that the man was Oswald



Assassin's-eye from the Depository window - arrow indicates approximately position of limousine just prior to fatal shot. The box shows the area blocked from effective aim by a tree. Chief difference between an assassin's situation here and the tower marksmen is that they were given unlimited time to zero their first shot on to a stationary target. The assassin would have had to track a moving target (he should have been able to glimpse it through the tree-branches) and shoot as soon as he had a clear view. Otherwise he would not have had time to complete his pattern of shots

## The crack shots who found it difficult

Three F.B.I. weapons-testers, and three Army gunners with National Rifle Association Masters' ratings, tried to equal with Oswald's rifle the burst of fire he would have had to produce. The F.B.I. tests (using a single target) were apparently scored by 'groups'; i.e., the results column shows the distance off-target of the centre of a circle covering all three shots. The Army tests required each marksman to fire at three stationary targets in succession - any hit on a body-silhouette scored. But even though these tests were made with partial improvements to C2766's defective telescopic sight - which threw high-right - no one scored a head or neck hit. (Note: Miller with open sights beat Frazier's estimate that 2.3 seconds was the fastest-possible between shots by .075 sec.)

| Test                                | Marksman   | Target                        | Range                                        | No. of shots             | Firing time | Results                       |
|-------------------------------------|------------|-------------------------------|----------------------------------------------|--------------------------|-------------|-------------------------------|
| F.B.I. 27/11/63                     | Killion    | Stationary silhouette         | 45 ft.                                       | 3                        | 9 sec.      | 2 1/2" high, 1" right         |
|                                     | Cunningham | Stationary silhouette         | 45 ft.                                       | 3                        | 7 sec.      | 4" high, 1" right             |
|                                     | Frazier    | Stationary silhouette         | 45 ft.                                       | 3                        | 6 sec.      | 4" high, 1" right             |
|                                     | Frazier    | Card target with aiming point | 75 ft.                                       | 3                        | 4.8 sec.    | 4-5" high                     |
|                                     | Frazier    | Card target with aiming point | 75 ft.                                       | 3                        | 4.6 sec.    | 1-2" right                    |
| F.B.I. 16/3/64                      | Frazier    | Card target with aiming point | 300 ft.                                      | 3                        | 5.9 sec.    | 5" high                       |
|                                     | Frazier    | Card target with aiming point | 300 ft.                                      | 3                        | 6.2 sec.    | 4" high, 3-4" right           |
|                                     | Frazier    | Card target with aiming point | 300 ft.                                      | 3                        | 5.6 sec.    | 2 1/2" high, 2" right         |
|                                     | Frazier    | Card target with aiming point | 300 ft.                                      | 3                        | 6.5 sec.    | 5" high, 5" right             |
|                                     | Frazier    | Card target with aiming point | 300 ft.                                      | 3                        | 6.2 sec.    | 4" high, 3-4" right           |
| ARMY 27/3/64                        | Hendrix    | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 8.25 sec.   | missed 2nd target             |
|                                     | Staley     | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 7 sec.      | missed 3rd target             |
|                                     | Staley     | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 6.75 sec.   | missed 2nd target             |
|                                     | Miller     | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 6.45 sec.   | hit all targets               |
|                                     | Miller     | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 4.6 sec.    | missed 2nd target             |
| Assassin: moving target 180-265 ft. | Miller     | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 5.15 sec.   | missed 2nd target             |
|                                     | Miller     | Upper body silhouettes        | 1 at 175 ft., 1 at 240 ft., and 1 at 265 ft. | 2 series of 3 shots each | 4.45 sec.   | missed 3rd target (off board) |

# Strange aftermath: the dead witnesses



If, as former Kennedy aide Richard Goodwin has proposed, the inquiry should be re-opened, it would have a more limited ambit of information. Several potential informants have died since 1963, some violently. The first three from the left, above, are Tom Howard (one of Ruby's lawyers), Bill Hunter, a reporter from California, and Jim Koethe, of the *Dallas Times Herald*. They

questioned Ruby's mysterious roommate after Oswald's death. Howard died of a heart-attack in March 1965; Hunter died in a California police-station shooting mishap in April 1964; Koethe was killed by an unknown karate-expert in September 1964. Right is Hank Killam (pictured with his wife), said to know a possible Oswald/Ruby link, dead in a Florida



accident. Not pictured: Lee Bowers, a key 'grassy knoll' witness (see Reconstruction drawing), dead in a Texas car-crash in August; Nancy Jane Mooney, a stripper who once worked at Jack Ruby's Carousel club, was found hanged in a Dallas police cell in 1964, having just cleared a man charged with shooting a Commission witness

## Is the evidence fairly handled?

The Warren Report says that the number and time-span of shots fired in Dealey Plaza cannot be perfectly established. But the preponderance of the evidence seemed to be that the first shot was the 'single-bullet' shot, followed by a shot which missed the car altogether, and the last shot was the head-shot to Kennedy. The time-span for that would be from 4.8 seconds to 5.6 seconds maximum.

The report claims that shooting of this order from the Depository window would be 'easy' for a good shot using rifle C2766. If that is so, it seems surprising that the six expert riflemen, whose results are set out on the facing page, could not manage an approximation of it more consistently.

The best effort seems to have been Miller's, in his first series in the Army tests. But he had certain advantages over the assassin: the rifle sight had been improved; he was only half as high up, he did not have a moving target, and he had unlimited time to aim his first shot.

And Miller, like his two test-colleagues, holds the Master rating, the fifth and highest rating given by the U.S. National Rifle Association. So the Warren Report's claim that Oswald was a good shot must be precisely substantiated.

Yet this is a point on which the Report's critics can make a powerful case that it misrepresented the evidence. The Report quoted Major Eugene Anderson and Sergeant James Zahm, both of the U.S. Marines Marksmanship Branch, as saying that Oswald would have been "good to excellent".

Yet the Report failed to mention the testimony of Nelson Delgado, who had been in the Marines with Oswald, and had stood next to Oswald more than once during rifle exercises. Delgado said Oswald was a poor shot, whose shooting was "a pretty big joke".

Anderson and Zahm were going on the details of two test-shoots in Oswald's U.S. Marines service record. In December 1956 he had shot a score of 212, two points above the minimum to take 'sharp-shooter'. (The divisions go up: marksman; sharp-shooter; expert.) In May 1959 he scored 191, one point over the minimum for marksman.

The Report admits that by Marine standards at least, a low marksman rating would represent a "rather poor shot". Major Anderson suggested that the 1959 test might have been made with a poorer rifle or on a "bad day... windy, rainy, dark".

This, naturally, leaves the way open for critics like Mark Lane (author of *Rush to Judgment*) to point out that Oswald's Marine Corps self-loading M-1 rifle would surely still have been better than a Mannlicher-Carcano 91/38 with a crooked sight. (Lane checked the weather in the area on the day of the test. It was "sunny and bright".)

The Warren Report alleges elsewhere that on April 10, 1963, Oswald attempted to kill Maj.-Gen. Edwin A. Walker, a controversial Right-winger and Dallas resident. This is cited as evidence of a capacity for violence—but it hardly seems to square with claims for his marksmanship.

The man who tried to kill Walker fired from close range with a rifle which he apparently rested on a fence. If it was Oswald, he presumably had a telescopic sight, yet he managed to miss Walker, a

stationary, well-lit target.

All in all, it seems easy for the Warren Report's enemies to find cases where it interprets the evidence which helps its conclusions. For instance, when discussing the question of Governor Connally's reaction to his wound, the Report says the bullet "struck a glancing blow to a rib".

The hospital record in fact says that it "shattered approximately 10 centimetres of the rib".

What seems to be the most remarkable of these occurs on page 105, quoting F.B.I. agent Robert A. Frazier, principal expert-witness on firearms.

Dealing with the bullet which it says passed through Kennedy's throat, the Report says: "Since it did not hit the automobile, Frazier testified that it probably struck Governor Connally."

Frazier actually said: "I myself don't have any technical evidence which would permit me to say one way or the other... I would certainly say it was possible, but I don't say that it probably occurred because I don't have the evidence on which to base a statement like that."

## Tippit: the window puzzle



Mrs Helen Louise Markham, the only eye witness who said she saw Oswald shoot Officer Tippit, gave puzzling testimony about Oswald's alleged approach to Tippit's car:

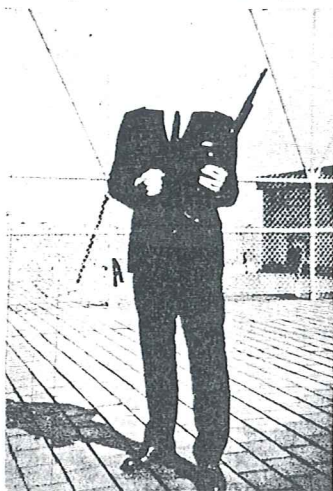
"I saw the man come over to the car...leaned and put his arms just like this, he leaned over in this window and looked in this window. Q. He put his arms on the window ledge?"

Markham. The window was down... Yes, sir... And the man went over to the car, put his hands on the window... The window was down, and I know it was down, I know, and he put his arms and leaned over..."

In fact, two other witnesses who arrived shortly after the shooting—one a policeman—said that the window of Tippit's car was closed. This photograph, taken just after the murder, certainly shows the window closed

# The FBI and Oswald's shadow

The photograph on the right was found by the Dallas police among Oswald's possessions. According to the Warren Report, the Commission concluded that the rifle shown in this picture "is the rifle which was found on the sixth floor of the Depository . . ." The career of the photograph is an example of the kind of potential toeholds for critics that the Commission left behind. Lyndal Shaneyfelt, the F.B.I. photographic expert who testified on the picture, said that the rifle it depicted had the general configuration of Mannlicher-Carcano C2766. But he said that it did not contain enough evidence for him to identify the rifle with certainty. Several critics of the Commission have alleged that the picture might be a composite of Oswald's head with



another body. This is because it is hard to re-stage the photograph making the face and body shadows match - as in the two test pictures we took. When the body shadow (right) matched the shadow in the Commission's pictures, the nose shadow fell to the side. When the nose shadow (bottom left) matched Oswald's nose, the body shadow fell straight back. This strikes many photographers who examine the picture as odd. It does not necessarily mean that the picture is a fake (Edgar-Hynes Thompson, Professor of Photogrammetry at London University, says that such a discrepancy could be reconciled by more complex tests). Rather, it illustrates the way in which the investigation was conducted. Although the issue of whether the picture was valid was of great importance, the Commission was satisfied with Shaneyfelt's assertion. Yet when the F.B.I. re-staged the picture the face of the agent who posed in their version was masked out of the picture (above)





## 'There will be...great speculation'

The Commission: (left to right) the chairman, Chief Justice Earl Warren, commissioners Allen W. Dulles, John J. McCloy, Senator John Sherman Cooper, Senator Richard B. Russell, Representative Hale Boggs, Representative Gerald R. Ford, and Commission General Counsel J. Lee Rankin

The Warren Report is not an edifice to crumble overnight – if at all. It is buttressed by some of the most solid reputations in the United States, including that of its chairman, Chief Justice Earl Warren.

And, understandably, it is not something that Americans want to see crumble. The Warren finding, that it was a lone nut who killed the President, provided certainty – and a welcome certainty – after a period of frequently wild rumour-mongering. If the critics have their way, the whole situation must be plunged back into a state of flux.

Slowly, inexorably, this seems to be coming about. The Commission has been subjected to a storm of assaults: but in essence it is two painstakingly cool-toned books which have undermined the foundations.

There are *Rush to Judgment*, by the New York lawyer Mark Lane, and *Inquest*, by political scientist Edward Jay Epstein – both now published here.\*

Epstein's basic operation is to attack the way the Commission worked: using a fairly narrow focus he convincingly argues that much of the job was done in shoddy fashion. The very manner in which the work was parcelled out seems to indicate that Oswald's sole guilt was assumed at the start. Potentially awkward leads were just not followed up in many cases.

Epstein isolates, for instance, a claim that Oswald was an F.B.I. paid informer: this included such details as his alleged pay-scale and file number S-172. The Commission and its staff reacted to this information – the source of which appears to have been a Dallas deputy sheriff – simply by asking the F.B.I. to deny it. The F.B.I. obliged.

Lane, approaching the matter as "defence counsel for Oswald", ranges wider. He challenges almost every area of the Warren Commission's case: did Oswald really kill Tippit? Did he buy rifle C2766? Did he take C2766 into the Depository? Lane makes some points which are little more than defence lawyer's ploys, and some which raise legitimate doubts about the Commission's handling of the evidence. For instance, he claims that the Commission are being too kind about the capacities of rifle C2766 when they say that "at least 2.3 seconds were required between shots".

Weapons expert Robert A. Frazier actually testified that firing once every 2.3 seconds was "as fast as the bolt can be operated, I think". He said that something should be added on for aiming time.

But central to both Lane's book and Epstein's is the attack on the credibility of the single-bullet theory. Several partial replies have been made to

these attacks – by Warren Commission lawyers like Wesley Liebeler and Albert Jenner, for instance. But it is difficult really to refute Lane and Epstein without precise description of the President's wounds, which depends on the publication of the autopsy X-rays and photographs. These, it seems, are in the possession of the Kennedy family.

Both books have drawn at least respectful views from American newspapers and magazines. Even *Time*, despite its previous scorn for Lane and Epstein, has said that "the Warren Commission was neither perfect in its procedure nor airtight in its presentation of evidence". Last month the *New York Times*, which threw the whole of its authority behind the Warren Commission when the Report came out, published in its magazine an article by British commentator Henry Fairlie saying that disturbing doubts had been raised.

The question, naturally, is: what sort of men composed the Warren Commission, now under such damaging attack? The chairman, Chief Justice Earl Warren, is a man with a considerable liberal record, especially on civil-rights. Senator Richard Russell is a right-wing Democrat from Georgia. Senator John Sherman Cooper is a moderate Republican, Representative Hale Boggs a Democrat, and a close friend of Lyndon Johnson.

Representative Gerald R. Ford is a hard-line Republican in foreign affairs but an outspoken opponent of Birchite right-wing behaviour. His record as Minority Leader of the House of Representatives is energetic but unobtrusive.

Allen W. Dulles, brother of John, is the former head of the C.I.A. John J. McCloy, a Republican from an old Philadelphia family who became Kennedy's disarmament expert, has been called "the American equivalent of Lord Franks".

Finally, James Lee Rankin, General Counsel to the Commission, is a Republican who argued before the Supreme Court the historic winning case in the Little Rock school-integration issue.

The Yale-or-Harvard background predominates; most of them had legal training. It could hardly be said that they were an unfair cross-section of American public life. And in fact the disputes over the findings of the Warren Report have little to do with conventional political divisions. For instance, the single-bullet theory had its most powerful advocate among the Commission's staff lawyers in Norman Redlich, a strong civil-rights advocate. But of the Commissioners, Senator Russell, an equally determined opponent of civil-rights, was the hardest to persuade on this point.

\* *Inquest* by Edward Jay Epstein, Hutchinson, 30s. *Rush to Judgment* by Mark Lane, Bodley Head, 42s.

In fact, Russell's objections were so intransigent that the Warren Report, the final account of the Commission's findings, never fully accepted the theory. After much argument, the Report merely said there was "persuasive" evidence for it.

Senator Cooper has since told people that he does not himself accept the single-bullet theory, although he still thinks that Oswald did it alone. This, however, is a position which is becoming more and more difficult to hold as discussion of the matter becomes steadily more informed.

In fact, in the present state of the evidence, Oswald's sole guilt seemingly must stand or fall with the single-bullet theory. In *Rush to Judgment*, Lane quotes Mark Twain: "Whoso, clinging to a rope, severeth it above his hands, must fall; it being no defence that the rest of the rope is sound."

It does not look as though there can be any swift denouement to the controversy. Both Lane's and Epstein's books – along with others such as the hot-tempered *Whitewash* by Harold Weisberg and *The Oswald Affair* by Leo Sauvage – have sold widely. Next year, there are likely to be several pro-Warren books (one by a Commission lawyer).

At this stage, though – Round Two – the anti-Warren lobby is on the attack, and the official view on the defensive. It is easy to forget that such mobility of opinion is a remarkable tribute to the openness of American society.

It is, after all, only three years since the emotion-laden event, and less than two years since the publication of the Report. And another point is that most of the critics' ammunition is drawn from the 26 volumes of evidence, which after heart-searching the Commission decided to publish.

And the attitude of Warren Commission members and staff to the debate does not appear to be generally intolerant. For instance, *THE SUNDAY TIMES* asked Arlen Specter (the lawyer responsible for investigating matters such as the bullet-trajectories and physical events of the assassination) to comment on the criticism. He replied:

"The recent books on the Warren Commission, in my opinion, do not raise any real question on the validity of the Commission's conclusions. Like the assassination of President Lincoln 100 years ago, there will doubtless be much written, and great speculation on the assassination of President Kennedy. The Commission conscientiously published 26 volumes of evidence so that anyone, such as those who are writing books now, could advance contrary theories if they chose to do so. However, the evidence as a whole forcefully supports the conclusions of the Warren Commission."